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| **gold** | **Chemistry** | **شعار-القسم** |
| **Metals and non-metals** |
| Worksheet-4- |

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| Name: Class: 8 /……........ | |
| Book pages: | |
|  | Date:23-4-2012 |
| 8.13.11-8.13.12 | Core Standard number |
| **1**.Know metals are conductors of electricity and heat, non-metals are poor conductors  **2**.Know carbon is exceptional in that it is a non-metal but that one allotrope, graphite, conducts electricity.  **3**.Know that metallic oxides are basic and non-metallic ones, acidic.  **4**. Explain the meaning of basic and the difference between basic and alkaline | Learning Objectives  Logo + text 2 |

1. Complete the table below

|  |  |
| --- | --- |
| Physical properties | |
| Metals | Non-metals |
| * Good [electrical conductors](http://hyperphysics.phy-astr.gsu.edu/hbase/electric/conins.html#c1) and [heat conductors](http://hyperphysics.phy-astr.gsu.edu/hbase/pertab/metal.html#c1). | * Poor conductors of heat and electricity. |
| * Malleable - can be beaten into thin sheets. | * Brittle - if a solid. |
| * Ductile - can be stretched into wire. | * Non ductile. |
| * Possess metallic luster. | * Do not possess metallic luster. |
| * Opaque as thin sheet. | * Transparent as a thin sheet. |
| * Solid at room temperature (except Hg). | * Solids, liquids or gases at room temperature. |

1. Which form of carbon conducts electricity?

***Graphite form***

1. Complete the following: use the words basic or acidic
2. Metals form oxides that are ***basic***, Calcium oxide magnesium oxide, zinc oxide
3. Non-metals form oxides that are ***acidic*** , Carbon dioxide, sulphur dioxide
4. a-Define base

***Base is substance which will***[***neutralise***](http://www.gcsescience.com/aa25.htm)***an acid, but does not dissolve in water, is***

***called a base***.

b- Examples of bases

***Copper(II) oxide, iron(II) oxide and zinc carbonate***

1. a-Define alkali

***Any base that dissolves in water is called an alkali.***

b- Examples of alkalis

[***sodium hydroxide***](http://www.gcsescience.com/i-sodium-hydroxide.htm)***,*** [***potassium hydroxide***](http://www.gcsescience.com/aa26.htm) ***and*** [***sodium carbonate***](http://www.gcsescience.com/i-sodium-carbonate.htm)

1. What is the difference between an alkali and a base?

Any alkali is a base but a base is not necessarily an alkali.